

AMENDMENTS TO THE CLAIMS

Please replace all previous versions of the claims with the following listing:

1-4. (Canceled).

5. (Currently amended) A deaerating method of a chemical liquid supply apparatus having: a pump discharging a liquid by communicating with the liquid accommodated in a liquid tank through a liquid introduction flow path to which a pump inlet-side valve for opening/closing the flow path is provided; a filter connected to said pump through a pump outlet flow path provided with a pump discharge-side valve and opened/closed by said pump discharge-side valve; and a liquid dispense portion connected to said filter through a liquid discharge flow path provided with a discharge valve and opened/closed by said discharge valve, and dispensing the liquid in said liquid tank from said liquid dispense portion, the deaerating method comprising the processes of:

performing a first sucking operation of said pump for sucking said liquid from said liquid tank under such a state that said pump-inlet side valve is opened and that said pump discharge-side valve is closed;

performing, after said first sucking operation, a first discharging operation of said pump for discharging said liquid from said liquid dispense portion under such a state that said pump-inlet side valve ~~and said discharge valve are~~ is closed and that said pump discharge-side valve and said discharge valve are ~~are~~ [[is]] opened;

opening, after said first discharging operation, a deaeration valve provided to an exhaust flow path communicating with an inlet side of said filter to exhaust, from said exhaust flow path or said liquid dispense portion, bubbles in said filter and in each of said liquid introduction flow path, said pump outlet flow path, and said liquid discharge flow path under such a state that an inside of said chemical liquid supply apparatus is filled with said liquid;

performing a second sucking operation of said pump for causing negative pressure to isolate, from a filtration film of said filter, bubbles collected in said filtration film and to move the bubbles to said inlet side

under such a state that ~~[[a]] said deaeration valve provided to an exhaust flow path communicating with an inlet side of said filter,~~ said pump inlet-side valve, and said discharge valve are closed and that said pump discharge-side valve is opened; ~~and~~

performing a second discharging operation of said pump for exhausting, from said exhaust flow path, said bubbles moved on said inlet side under such a state that said deaeration valve and said pump discharge-side valve are opened and that said pump inlet-side valve and said discharge valve are closed; ~~and~~

dispensing said liquid from said liquid dispense portion as occasion arises,

wherein the respective processes of performing said second sucking operation and said second discharging operation, while maintaining always the inside of said chemical liquid supply apparatus in a state of being filled with said liquid, are repeated until said bubbles in said filtration film are removed.

6. (Previously presented) A chemical liquid supply apparatus comprising:

a pump discharging a liquid by communicating with the liquid accommodated in a liquid tank through a liquid introduction flow path to which a pump inlet-side valve for opening/closing the flow path is provided;

a filter connected to said pump through a pump outlet flow path provided with a pump discharge-side valve and opened/closed by said pump discharge-side valve;

a liquid dispense portion connected to said filter through a liquid discharge flow path provided with a discharge valve, the liquid in said liquid tank being dispensed from said liquid dispense portion;

an exhaust flow path provided in communication with an inlet side of said filter; ~~and~~

a deaeration valve provided to said exhaust flow path; and

a system control section configured to close said deaeration valve, said pump inlet-side valve, and said discharge valve, ~~and to~~ open said pump discharge-side valve, and cause negative pressure to isolate, from a filtration film of said filter, bubbles collected in said filtration film and to move the bubbles to said inlet side while performing a sucking operation of said pump, and configured to open said deaeration valve and said pump discharge-side valve, ~~and to~~ close said pump inlet-side valve and said discharge valve, and exhaust, from said exhaust flow path, said bubbles moved on said inlet side while performing a discharge operation of said pump.